Town of Amherst
Zoning Board of Appeals - Special Permit

DECISION

Applicant: Stephan Rogers/ SunEthanol

Date application filed with the Town Clerk: May 25, 2007

Nature of request: A Special Permit to operate a laboratory and conduct light manufacturing of scientific products under Section 3.372.1 of the Zoning Bylaw

Address: 101 University Drive (Map 13B, Parcels 17 & 22, B-L Zoning District)

Legal notice: Published on May 30 and June 6, 2007 in the Daily Hampshire Gazette and sent to abutters on May 28, 2007

Board members: Ted Rising, Hilda Greenbaum and Jane Ashby

Submissions: The petitioner submitted a packet of information of the following:

- A Management Plan for SunEthanol, Inc., dated April 4, 2007;
- A floor plan of the proposed lab and offices prepared by Kraus-Fitch Architects, Inc., dated May 4, 2007;
- A site plan of the Slobody building where SunEthanol will be located, drawn by Clough, Harbour & Associates, dated 6/4/07 and approved by the Planning Board under Site Plan Review (SPR-98-0002 and SPR-2000-0004)
- Material Safety Data Sheets of the 21 chemicals used or produced in the SunEthanol process;
- A certified letter stating that SunEthanol posted a notice of the Special Permit hearing at 101 University Drive on June 12, 2007.

Town staff submitted the following:

- A memo from the zoning staff assistant commenting on the application, dated 6/8/07;
- A memo from Fire Prevention officer William Klaus commenting on the access for the proposal, the water supply, aspects of the Slobody building, and signage, dated 6/13/07.

Site Visit: June 12, 2007

The Board met with Linda Shea, John Fabel and Professor Susan Leschine, all of SunEthanol, and visited two sites – the proposed space and the existing lab at UMass. They observed the following:

1. Slobody Building, Suite A7:
   - The building, located on University Drive, which houses a variety of offices associated with UMass, offices and another a laboratory;
   - The interior of the room to be rented, which is empty at present;
   - The exits, windows and doors for the space, as shown of the submitted floor plan;
   - The approximate area where chemicals will be stored separated from one another.

2. Morrill Science Center, UMass:

- The small research lab where the process was developed and is still being tested and streamlined;
- The test tubes of bacteria from Quabbin Reservoir soil, cellulose from plant material, nitrogen, yeast and test tubes of the end product – a small amount of ethanol.

Public Hearing: June 14, 2007

ZBA Chair Mr. Rising read into the record the two items submitted at the hearing:

- A memo from Fire Prevention officer William Klaus commenting on the access for the proposal, the water supply, aspects of the Slobody building, and signage;
- A certified letter stating that SunEthanol posted a notice of the Special Permit hearing at 101 University Drive.

Steve Rogers, chief officer for SunEthanol, presented the application at the hearing. Also present were Dr. Susan Leschine, who developed the process, Richard Slobody, owner of the Slobody building where the applicant wishes to locate, and Mary Kraus, architect.

Mr. Rogers gave the following information:

- The Slobody building on University Drive is zoning Limited Business, which does include light manufacturing of scientific products under Section 3.372.1 of the Zoning Bylaw;
- Dr. Leschine has researched the microbe that, combined with cellulose, can produce ethanol;.
- The process has been developed in the lab at UMass, but now they wish to scale up the process in a manufacturing lab on the first floor of the Slobody building;
- No exterior work will be done to the building except for a hole in the wall for vents and film screening on the windows for privacy;
- Inside they will construct two walls for meeting rooms and a "Level 1" lab (the least pathological or hazardous type lab);
- He met with Bill Klaus of the Amherst Fire Department, and the main requirement was to require a Knox box in the main part of the building to house the chemical sheets and a key to the lab in case of an emergency;
- The proposed lab will not be a production facility; the ethanol will be produced in tiny amounts, and it's essentially a fermentation process for the microbe used to convert cellulose to ethanol;
- When they develop a "production line" and slightly increase the process, they will contract it out to another facility.

Dr. Leschine gave the following information about her work using the microbe:

- The basic product used in the process is cellulose – paper, wood, plant material, corn stover, which is labeled as "grass" by the U.S. Dept. of Energy, and is non-pathological;
- A microbe catalyst found in the soil at the Quabbin reservoir helps to convert the grass to ethanol;
- She wishes to improve the microbe's performance at the new lab;
- The waste product at the end of the process will be paper waste sludge or waste corn plantings;
- The microbes double every few hours;
- The site visit to her UMass microbiology lab showed the production (small) and procedure.

Ms. Greenbaum stated that she was glad for the site visit. She originally thought that it would be a much bigger operation, but it is a small one, conducted in test tubes. She also wondered about yeast odor, being familiar with it in microbiology labs. But there was no odor at the site visit, and there should not be any odor at the new location either.

Ms. Greenbaum asked about the other lab already located in the Slobody building, called "P.A. Technology."

Tony Shrout, Easthampton, was in the audience and stated that "P.A. Technology" is his business. They develop signal transduction kits for research of cancer and other diseases.

Ms. Greenbaum asked about the classification of "scientific labs" in the Zoning Bylaw. The zoning assistant responded that this application does not readily fall into any category of the Bylaw, but it fits best as "light manufacturing" of a scientific product with associated offices, Section 3.372. SunEthanol is producing small amounts of microbes and ethanol, and upgrading the procedure, plus there are two offices proposed.

Ms. Ashby asked how Dr. Leschine will be improving the microbes. Dr. Leschine responded that they will use a "natural selection" technique. That is, they will choose those microbes that grow faster, and discard the slower microbes. There are no plans for taking genes from one organism and giving it to another. There will be no recombinant DNA, or no taking pieces of DNA from the same microbe to another.

Ms. Ashby made a motion to close the evidentiary portion of the hearing. Ms. Greenbaum seconded the motion, and the vote was unanimous to close the evidentiary portion of the hearing.

Public Meeting:
Discussion during the meeting focused on the process, with the conclusion being that it was a modest one that would fit into the office building under consideration. The Board also discussed the waste that would be produced - would it be considered toxic or biomedical waste? The conclusion, with help from the applicant, was that it was neither, but all government health and safety measures would be followed. For example, all equipment would be sterilized and waste would be kept in a special box to be collected by a medical waste company. In addition, the Fire Department conditions as indicated in the memo to the ZBA from the Fire Department cover several safety measures for the company.

The Board spent the rest of the meeting discussing specific findings and conditions for the Special Permit if the permit were to be granted.

Findings:
The Board finds under Section 10.38 of the Zoning Bylaw, Specific Findings required of all Special Permits, that:
10.380 and 10.381 – The proposal is suitably located in the neighborhood and is compatible with existing uses because there is another laboratory in the building and other offices associated with the University of Massachusetts. Also, the Slobody building is located in a Limited Business district where light manufacturing and offices are permitted.
10.382 and 10.385 – The proposal would not constitute a nuisance and reasonably protects the adjoining premises against detrimental or offensive uses on the site because all health and safety procedures will be followed, and the process itself is modest, at the test tube level, using benign materials. Vents will be installed, and odor will be minimal. Little noise is generated with the process. There should be no impact on the rest of the building.
10.383 and 10.387 – The proposal would not be a substantial inconvenience or hazard to abutters, vehicles or pedestrians and the proposal provides convenient and safe vehicular and pedestrian movement within the site and in relation to adjacent streets because the building was designed for offices and commercial use, and the site received Site Plan approval from the Planning Board. The manufacturing in this case is carried out on a table top in test tubes and incubators.
10.384 – Adequate and appropriate facilities would be provided for the proper operation of the proposed use because the process was designed and implemented safely at UMass, which will be replicated at this site. In addition, all local and state health and safety regulations will be followed.
10.386 – The proposal ensures that it is in conformance with the Parking and Sign regulations of the Town

because the site has the required parking and signs as approved by the Planning Board, which is ample for the entire building. The applicant will post the sign on the main sign at the entrance to the building and on the directory sign within the building.
10.389 – The proposal provides adequate methods of disposal and storage for sewage, refuse, recyclables and other wastes because, as indicated in the submitted Management Plan, chemicals will be stored separately in designated cabinets at the lab and the waste from the SunEthanol process is non-hazardous. This waste will be disposed of in accordance with relevant EPA guidelines.
10.393 – The proposal provides protection of adjacent properties by minimizing the intrusion of lighting because the process is indoors with no external evidence, and the windows of the lab/office space will have film screening.
10.398 – The proposal is in harmony with the general purpose and intent of the Zoning Bylaw because it protects the health, safety, convenience and general welfare of the inhabitants of the Town of Amherst. It also may develop a valuable environmentally safe alternative to oil based fuel.

Public Meeting – Zoning Board Decision
Ms. Greenbaum made a motion to APPROVE the proposal, with conditions. Ms. Ashby seconded the motion.

For all of the reasons stated above, the Board VOTED unanimously to approve a Special Permit to operate a laboratory and conduct light manufacturing of scientific products under Section 3.372.1 of the Zoning Bylaw on the premises at 101 University Drive (Map 13B, Parcels 17 & 22, B-L Zoning District) as requested in the application filed by Stephan Rogers, with conditions.

_____	_____	_____
EDWARD RISING	HILDA GREENBAUM	JANE ASHBY

FILED THIS _____ day of _____, 2007 at _____,
in the office of the Amherst Town Clerk_____.

TWENTY-DAY APPEAL period expires, _____ 2007.
NOTICE OF DECISION mailed this _____day of _____, 2007
to the attached list of addresses by _____, for the Board.

NOTICE OF PERMIT or Variance filed this _____day of _____, 2007,
in the Hampshire County Registry of Deeds.

Town of Amherst
Zoning Board of Appeals

SPECIAL PERMIT

The Amherst Zoning Board of Appeals hereby grants a Special Permit to operate a laboratory and conduct light manufacturing of scientific products under Section 3.372.1 of the Zoning Bylaw on the premises at 101 University Drive (Map 13B, Parcels 17 & 22, B-L Zoning District) as requested in the application filed by Stephan Rogers, subject to the following conditions:

1. The laboratory and offices shall be built according to the submitted plans drawn by Kraus-Fitch and approved by the Board at the public hearing on June 14, 2007.
2. The business shall be managed according to the SunEthanol Management Plan approved by the Board at the public hearing on June 14, 2007.
3. No recombinant DNA shall be used in the SunEthanol process.
4. All interior spaces involved in or associated with laboratory use, light manufacturing activities, and storage of potentially hazardous materials shall be fully vented to the exterior of the building, according to best industry practices for the materials and activities involved.
5. The permit shall expire upon change of ownership of the business.

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EDWARD RISING, Chair
Amherst Zoning Board of Appeals

_____
DATE